APPENDIX

UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

No. 11,963.

WILCOX MANUFACTURING COMPANY, *Appellant,*

v.

EASTERN GAS AND FUEL ASSOCIATES, *Appellee.*

No. 11,964.

JEFFREY GALION MANUFACTURING COMPANY, *Appellant,*

v.

WILCOX MANUFACTURING COMPANY, *Appellee.*

Appeals from the United States District Court for the Southern District of West Virginia, at Charleston.
John A. Field, Jr., Chief District Judge.

(Argued April 3, 1968. Decided July 18, 1968.)

Before BRYAN, WINTER and BUTZNER, Circuit Judges.

John W. Malley and William K. West (Raymond F. Lippitt, and Cushman, Darby & Cushman on brief) for Appellant, and John M. Webb (William H. Webb, and Webb, Burden, Robinson & Webb; David D. Johnson, and Jackson, Kelly, Holt & O'Farrell; and David Young on brief) for Appellees.

ALBERT V. BRYAN, Circuit Judge:

Coal mining patents owned by Wilcox Manufacturing Company, a West Virginia corporation were set at naught by the District Court and the company appeals. The successful parties were the appellees, Eastern Gas and Fuel

Associates, chartered in Massachusetts, and Jeffrey Galion Manufacturing Company, chartered in Ohio. We affirm.[1]

The apparatus patent—the dominant one here—is No. 3,026,098, issued March 20, 1962 and the other is No. 2,-967,701, termed a method patent, issued January 10, 1961. The original application was made August 16, 1954 and was rekindled from time to time by amendments until the issuance of the patents in suit. Both stem from renewal of May 6, 1957, a division of it leading to the method letters. The specifications of the patent, with unimportant additions, have been carried into the patents now questioned.

I. The machine excavates coal by boring into the seam with two parallel augers. Equipped with a bit on the end, the shaft of each auger is helical, that is screw-shaped or spiraled. As the coal is cut and loosened, the screw blades act as a worm, withdrawing and gathering the coal, and delivering it rearwardly. It is called a "continuing miner" because it performs these functions without interruption while it is moved along the face of the stratum by a winch, cables and pulleys. The mechanism is described with simplicity by the District Court as:

> "... comprised of a frame carrying a power plant and conveyor and having a pair of cutting and conveying helical augers disposed forwardly of the frame which augers are horizontally spaced from each other, *rotating* in opposite directions, longitudinally *reciprocated* and *vertically adjustable.*
>
> "The machine is designed so that it can be 'sumped in' [i.e. forced] to the face of the coal, and then moved transversely across the face, cutting the coal to the

[1] This is a consolidated appeal of two actions tried together. In one Wilcox was the unsuccessful plaintiff against Eastern Gas and Fuel Associates for alleged infringement of both its method and apparatus patents (respectively 2,967,701 and 3,026,098). In the other suit Jeffrey as plaintiff sought a declaratory judgment that these two Wilcox patents were invalid.

height of the vein, and continuously conveying the coal so cut outwardly to a point to the rear of the machine where it can be picked up and further conveyed by other auxiliary equipment. At the end of one traverse the machine may be again 'sumped in' and another transverse cut made along the face of the coal in the opposite direction." (Accent added.)

The salient characteristics disclosed are rotation, meaning the drilling movement of the augers; reciprocation, i.e., a cyclical short forward thrust, with immediate retraction, of the augers; and vertical adjustability, defining the potential of manipulation of the augers upward or downward while in a horizontal posture, as needed. Their usage is illustrated in these excerpts from the specifications:

". . . the machine of the present invention is particularly adapted to remove material from a relatively low mine face which may include a vein of impure material."

* * * * *

"It will be understood that where it is desired to dig out a seam of a height higher than the vertical height of the augers themselves, one of the *augers may be raised* relatively to the other so that during the movement of the machine across the mine face, the augers will remove a seam of a height equal to the upper level of the raised auger. At the lateral ends of the seam, the adjacent auger may be either raised or lowered in operation to complete the seam.

"It can thus be seen that there has been provided a continuous mining machine having cutter means which *may be both rotated and reciprocated* longitudinally so as to render the same operable both longitudinally and transversely to the coal face . . . ." (Accent added.)

It was conceded by the patentee that each of the three distinctive features had appeared earlier in pairs but never

in trio. The inventive concept constantly pressed by Wilcox upon the Patent Office was the "combining [of] these three movements in a single cutter". The forgetive and "vital element" asserted by Wilcox, as the District Judge found, was reciprocation. The record fully exposes this to be burden of the Wilcox contentions throughout.

Wicox's president testified at trial:

> Q. "... did you think ... [reciprocation] was essential to the operation of the machine?"
>
> A. "Yes. Actually this was one of Mr. Wilcox's features of the machine."
>
> * * *
>
> Q. "... you believed that you could not successfully cut a vein of coal by rotating augers, pulling the machine across unless you reciprocated those augers, isn't that correct?"
>
> A. "That is correct."

Without reciprocation or its putative equivalent of "critical bit spacing", Wilcox told the Patent Office, the auger cutter could not move transversely and the machine would be inoperable.

In an amendment of the application as late as November 3, 1961, Wilcox again alludes to the indispensability of reciprocation, again claiming the triune of the three features as constituting invention:

> "For the sake of argument it can be admitted that *all* of the structure included in the combination which solved the problem is per se old. It is not these *individual* features which solve the problem but a specific combination of them, and it is this combination which is patentable." (Accent added.)

But then Wilcox omits reciprocation from its patent claims, although disclosing it in its specifications. In its

place, an equivalent—critical or precise bit spacing—is said to appear in the claims. We detect no such language. Nor could the District Judge. He found it was not defined, or otherwise identifiable, anywhere in the patent. Consideration of this element is thus precluded, for the deficiency violates the statutory demand for a clear and exact description of the invention. 35 USC 112.

Evidently the real reason for leaving reciprocation out of the claims was that Wilcox had learned from a buyer that its miner would operate successfully without the reciprocation. Indeed, it had manufactured and sold machines of this type. But by then—1959, almost five years after the application was first filed—the nonreciprocating machine had been in public use for more than a year and Wilcox could not apply for a patent on it. 35 USC 102 (b).

The machine accused here and known as the Jeffrey unit undoubtedly was calculatedly made in the image of the Wilcox miner but without the ingredient of reciprocation. Thus the Jeffrey comes within the Wilcox claims but not within the specifications of that patent. Relying on this coverage, Wilcox declared infringement by the Jeffrey.

We hold the apparatus patent of Wilcox invalid.

To begin with, in averring that the Jeffrey trenches upon its claims, Wilcox must be taken as contending that its claims do not include reciprocation, since the Jeffrey has no such movement. If Wilcox does not claim reciprocation, then its patent is void, under 35 USC 102 (b), because of the prior successful public use of its miner when without reciprocation.

Next, the patent is void because the claims lack support in the specifications. As already explained, the specifications describe a machine embracing reciprocation, and the file wrapper conclusively reveals that it was the predominant predicate of the Wilcox application. The company

cannot now successfully prosecute claims omitting that element.

> "[T]he patent monopoly . . . cannot be enlarged by claims in the patent not supported by the description . . . . ; . . . . the application for a patent cannot be broadened by amendment so as to embrace an invention not described in the application as filed, at least when adverse rights of the public have intervened." [Citations omitted.] Schriber Co. v. Cleveland Trust Co., 305 US 47, 57 (1938).

Cf. Snow v. Lake Shore and Michigan Southern Railway Company, 121 US 617 (1887).

As was later said in Graver Mfg. Co. v. Linde Co., 336 US 271, 277 (1949):

> "We have frequently held that it is the claim which measures the grant to the patentee. . . . While the cases more often have dealt with efforts to resort to specifications to expand claims, it is clear that the latter fail equally to perform their function as a measure of the grant when they overclaim the invention. When they do so to the point of invalidity and are free from ambiguity which might justify resort to the specifications, we agree with the District Court that they are not to be saved because the latter are less inclusive. . . ." [Citations omitted.]

Attempting to rescue the patent, Wilcox would consider as within the claims so much of the specifications as employ reciprocation in describing the machine. The right to refer to the specifications for clarification of the claims cannot be invoked to validate the claims. We said so in Brown v. Brock, 240 F2d 723, 728 (1957) with these words of Judge Sobeloff:

> "While the claims should be construed in the light of the specification to obtain an understanding thereof,

the limitations specified cannot be read into the claims."

Nor can this attempt be justified under 35 USC 112 which allows the use of the term "means", as it appears in the Wilcox claims, to bring into the claims of a combination patent any element described in the specifications. For the introduction is directly contrary to Wilcox's insistent interpretation of its claims—that they cover a machine, such as the Jeffrey, which has no reciprocation.

Thus Wilcox assumes contradictory positions. On one hand, it asks the Court to read reciprocation into the claims in order to preserve the validity of its patent, but on the other hand to read it out in order to find infringement by the Jeffrey.

To permit the patent to stand would mislead the public. The Wilcox claims, if allowed, would exclude machines not employing reciprocation. Since it covers an assemblage of confessedly old constituents, with reciprocation as the keystone, this combination patent would not be invaded by another aggregation which may not include this part of the patented device. Entron of Maryland, Inc. v. Jerrold Electronics Corp., 295 F2d 670, 677 (4 Cir. 1961); Kay Patents Corp. v. Martin Supply Co., 202 F2d 47, 51 (4 Cir. 1953). Yet although dependent as it is upon reciprocation the Wilcox patent might serve as an in terrorem bar to a similar device without this component in its make-up.

Inasmuch as we vitiate the patent on its face in the light of its representation to the Patent Office and the District Court, we have no occasion to put it to the obviousness tests of Graham v. John Deere Co., 383 US 1, 17 (1965). Nor need we weigh the defenses of anticipation or prior art. For the same reasons, commercial success and the other "secondary considerations" are not presently pertinent. Id. 17. We do refer to *Graham,* however, to justify our use of the patent's history. Id. 33.

II. The method patent was applied for June 30, 1960, a bifurcation of the original application. After amendments thereto, the patent issued as No. 2,967,701 on January 10, 1961. In the specifications it at once advises that "This invention relates to mining *methods* and more particularly to mining *methods* of the continuous type in which the coal or other material being mined is continuously conveyed away from the mine face". Its single claim is of "a *process* of continuous short wall coal mining . . . ." The words now underlined in these quotations emphasize that it is not an apparatus patent despite that one of the specifications says, "It can thus be seen that there has been provided a continuous mining machine. . . ."

In truth, this patent's "method" and "process" is fitted to the Wilcox apparatus. The machine it covers is specified in the same terms as is the Wilcox miner patent. It too prescribes reciprocation in the specifications, but the method or process claim contains no allusion to this element. Hence, it must be faulted for the same flaws found in the apparatus patent. Actually, however, this is not a method or process patent. It is merely a statement of how the Wilcox machine is to be operated. Directions of this sort are not patentable. Chisholm-Ryder Co., Inc. v. Buck, 65 F2d 735, 736 (4 Cir. 1933).

The decree of the District Court will be approved.

Affirmed.

UNITED STATES DISTRICT COURT
S. D. WEST VIRGINIA,
CHARLESTON DIVISION.

Civ. A. Nos. 2544, 2721.

WILCOX MANUFACTURING COMPANY, *Plaintiff*,

v.

EASTERN GAS AND FUEL ASSOCIATES, *Defendant*.

JEFFREY GALION MANUFACTURING COMPANY, *Plaintiff*,

v.

WILCOX MANUFACTURING COMPANY, *Defendant*.

July 26, 1967

OPINION

FIELD, Chief Judge.

Civil Action No. 2544 is an action for alleged infringement of United States Letters Patent No. 2,967,701, which issued January 10, 1961, and United States Letters Patent No. 3,026,098, which issued March 20, 1962. The plaintiff is Wilcox Manufacturing Company (hereinafter referred to as "Wilcox"), a West Virginia corporation, having its principal place of business in Raleigh, West Virginia. The defendant is Eastern Gas and Fuel Associates (hereinafter referred to as "Eastern"), a Massachusetts corporation, having regular and established places of business at Kopperstown and Barrett, West Virginia.

Civil Action No. 2721 is an action for a declaratory judgment that United States Letters Patent Nos. 2,967,701 and 3,026,098 are invalid and have not been infringed. The defendant asserted a counterclaim for alleged infringement of Patent No. 3,026,098. The plaintiff in Civil Action No. 2721 is Jeffrey Galion Manufacturing Company, an Ohio corporation, having its principal place of business at Colum-

bus, Ohio. The Jeffrey Manufacturing Company is a division of Jeffrey Galion Manufacturing Company. Both will be referred to hereinafter as "Jeffrey." The defendant in Civil Action No. 2721 is Wilcox.

Jurisdiction over the parties and the subject matter of Civil Action No. 2544 is founded upon 28 U.S.C.A. § 1338(a) and is not disputed. Jurisdiction over the parties and subject matter of Civil Action No. 2721 is founded upon 28 U.S.C.A. §§ 1332(a), 1338(a), 2201 and 2202 and is not disputed.

The principal issues in both actions are the validity of the Wilcox patents and the alleged infringement of those patents by Jeffrey 100-L miner. Accordingly, the two actions were consolidated for trial.

The two patents involved in this litigation issued on applications filed by Arnold G. Wilcox, and Wilcox Manufacturing Company is the owner of the entire right, title and interest in and to these patents. Patent No. 2,967,701 which covers a method of mining, issued on an application filed June 30, 1960, Serial No. 40,014, and Patent No. 3,026,098 which covers a mining machine issued on an application filed May 8, 1961, Serial No. 108,371. Both of these applications were based on a prior application filed May 6, 1957, Serial No. 657,160, which is alleged by Wilcox to be a continuation-in-part of Wilcox application Serial No. 449,851, filed August 16, 1954.

Jeffrey and Eastern contend that Wilcox Patent No. 3,026,098 is invalid for the following reasons:

(1) The apparatus which the patent purports to cover was obvious to those skilled in the art at the time of the alleged invention, and therefore the patent lacks invention under 35 U.S.C.A. § 103.

(2) The claims contended for in this litigation by Wilcox are broader than any invention disclosed in the patent, and therefore the patent is invalid for overclaiming

(3) The apparatus which Wilcox contends is covered by the claims of the patent was in public use and on sale more than one year prior to the assertion of claims covering that apparatus.

These parties also challenge the validity of the Method Patent No. 2,967,701 for the following reasons:

(1) The method which the patent purports to cover was obvious to those skilled in the art at the time of the alleged invention and accordingly the patent lacks invention as required by 35 U.S.C.A. § 103.

(2) The claim of this patent purportedly covers merely the method of using the apparatus shown in the patent and therefore is invalid and improper as a method claim.

(3) The specification does not describe an operative method of mining and accordingly the patent is invalid for failure to contain a description of the invention in such terms as to enable any persons skilled in the art to practice it as required by 35 U.S.C.A. § 112.

Additionally, it is charged that foreign applications were filed with respect to both of the patents which included subject matter that had been filed in the United States Patent Office less than six months prior to the filing of the foreign applications and accordingly the patents are invalid under 35 U.S.C.A. § 185.

While both of the Wilcox patents are in issue in these actions, disposition depends primarily on the question of validity of the apparatus patent No. 3,026,098. The first Wilcox application No. 449,851 which was filed on August 16, 1954, states that the invention relates to mining machines of the continuous type, and that it is particularly adapted for use in mines having a relatively low face. The specification describes the machine as comprised of a frame carrying a power plant and conveyor and having a pair of cutting and conveying helical augers disposed forwardly of the frame which augers are horizontally spaced from

each other, rotating in opposite directions, longitudinally reciprocated and vertically adjustable.

The machine is designed so that it can be "sumped in" to the face of the coal, and then moved transversely across the face, cutting the coal to the height of the vein, and continuously conveying the coal so cut outwardly to a point to the rear of the machine where it can be picked up and further conveyed by other auxiliary equipment. At the end of one traverse the machine may be again "sumped in" and another transverse cut made along the face of the coal in the opposite direction. The maximum vertical dimensions of the frame are less than the vertical dimension of the cutting augers and, accordingly, the opening cut by the augers is high enough to accommodate the entire machine as the room is developed.

Incident to this first application, Wilcox took the position that he was the first to provide a cutter with the combination of (1) rotation, (2) reciprocation and (3) vertical adjustment. Since it bears vitally on both the question of obviousness and infringement, I think it appropriate to refer to the following excerpts from the specification which appear in the initial application as well as the patent No. 3,026,098 as it finally issued. The combined rotary and reciprocatory motion of the cutters is described as follows:

> "The housing 36 is adapted to carry a suitable means 40 for transmitting the rotary motion of the power plant to the cutting means 14 so as to selectively reciprocate the latter longitudinally. While the means 40 may take many forms, a preferred embodiment is shown in detail in Figures 5 and 6. As shown, a main shaft 42 is drivingly connected with the power plant 16, through a suitable clutch mechanism 44, and has its rear end splined, as at 46, so that it may reciprocate axially therein.
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> * * * * * * * * *

"It will be seen that when the stub shaft 52 is rotated that the cam 62 and follower 66 will cause the transmission housings 36 and 38 to longitudinally reciprocate with respect to the main frame and power plant."

Similarly, the operation of the machine refers to this combined rotary and reciprocating motion:

"During this sumping operation, the clutch linkage 60 is actuated to disengage the clutch teeth 54 and 56 so that the cutting augers will not be reciprocated longitudinally.

* * * * * * * * *

"The clutch linkage 16 is then actuated by the operator to bring the clutch teeth 54 and 56 into engagement so that the augers will be longitudinally reciprocated through the main shaft 42, bevelled gears 48 and 50, shaft 52, cam 62 and plate cam follower 64 and 66. In this regard, it is to be understood that since the plate 64 is rigid with the power plant and main frame, the sub-frame 28 and all of the structural elements carried thereby, including housings 36, 38, and 76 will be caused to longitudinally reciprocate. The operator may then actuate the winches 20 to cause the machine to move across the mine face and during this movement the combined rotary and reciprocating motion of the cutter will cause the teeth 108 and 102 to loosen the coal which will then be conveyed rearwardly by the helical blades 96 from where it is conveyed to the rear of the machine by the screw conveyor 112 and endless conveyor 114.

* * * * * * * * *

"After the pure coal has been removed and collected as described above, the operator may then selectively raise the augers by actuation of the associated hydraulic ram 90. It is to be noted that during this raising motion the auger is both rotated and reciprocated."

[1, 2] The scope of the Wilcox patent is limited to the invention described in the claims read in the light of the

specification, and each of the claims must necessarily be construed in the light of the specification and may not transcend the invention disclosed thereby. See Texas Co. v. Globe Oil & Refining Co. (7th Cir. 1955) 225 F.2d 725. It is also well settled that an invention should be construed not only in the light of the specification and the claims, but also with reference to the file wrapper history in the Patent Office. Graham v. John Deere Co., 383 U.S. 1, 33, 86 S.Ct. 684, 15 L. Ed. 2d 545. Since the language of the specification hereinabove quoted appeared in both the original Wilcox application as well as in the apparatus patent which finally issued to him, it is both desirable and necessary in the disposition of this case to review the history of the proceedings in the Patent Office during the seven and one-half years the Wilcox applications were pending therein from the date of the original application in 1954 until the issuance of the patents in March of 1962.

Patent Office Proceedings

As hereinbefore stated the first application Serial No. 449,851 was filed by Wilcox in the Patent Office on August 16, 1954, the specification in that application containing the details and language hereinbefore quoted. Thirteen claims were filed with the original application, and the first action of the Patent Office was a requirement that the claims be restricted to either the mining machine or the mining head described therein. On March 30, 1956, the Patent Office rejected all of the claims to the mining machine as unpatentable over the prior art and asked for additional disclosure by means of drawings inasmuch as the showing of the drawings of the mountings for the cutter and the means for reciprocation of the cutters was not clear.

By amendment dated May 23, 1956, Wilcox cancelled all the original claims except Claim 11 and added four new claims. All of the claims retained in the application specifically required means for reciprocating the cutters, and

Wilcox distinguished the prior art cited by the Office on the ground that none of the art showed the combination of the three specific motions required by the machine in his application, namely, rotation, reciprocation and vertical adjustment. Indeed, Wilcox admitted that the combination of rotation and vertical adjustment was old, and that rotation together with reciprocation was disclosed by Hurd Patent No. 556,986 and Hess Patent No. No. 999,996. On July 31, 1956, Wilcox amended the application to include new drawings showing the mounting for the cutters and the means for reciprocating the same. Additionally, Wilcox added a new claim which required only one auger, and asserted that the single auger machine was a part of the same invention and that the number of cutters did not affect the patentability of the machine, the invention residing in the three motions, namely, rotation, reciprocation and vertical adjustability. The Patent Office refused to allow the single auger claim, but did allow five claims directed to the two auger machine, all of which required the three motions heretofore detailed. Wilcox did not pay the final fee and this application was forfeited.

One day before the original application was forfeited, Wilcox filed a continuation-in-part application Serial No. 657,160 which contained the same disclosures as the original application as amended, and also included an extensive description of a single auger machine. Fifteen claims were filed with this application and were directed to a machine which specifically required the three elements which Wilcox had alleged in his original application. Incident to this application which was filed as of May 15, 1958, Wilcox distinguished his machine from the prior art on the basis of the reciprocatory motion disclosed in the application, and apparently believed and so represented to the Patent Office that reciprocation was essential to the operation of the apparatus, and that without it the auger cutter could not be successfully moved transversely across the mining seam. On October 28, 1958, Wilcox filed a sup-

plemental amendment covering an application for a claim to a process of continuous short wall mining. On December 29, 1958, the Patent Office allowed ten apparatus claims, all of which expressly required reciprocation, but declined to consider the process claim.

On June 29, 1959, more than four years after the original application was filed and more than three years after Wilcox had sold its first mining machine, Wilcox inserted a claim which did not specifically require reciprocation, asserting that a critical bit spacing on the augers was equivalent to reciprocation and could be substituted therefor. There was no disclosure defining this critical bit spacing which was alleged to be the equivalent of reciprocation. A supplemental amendment dated December 9, 1959, was filed, and in an interview the Examiner took the position that claims without reciprocation were broader than the applicant's invention. Wilcox asserted that reciprocation had not merely been eliminated from the claims, but that the language had been broadened to require reciprocation or its equivalent, asserting that without either reciprocation or its equivalent, the claims would cover an inoperative structure. On December 22, 1959, the Patent Office allowed fifteen claims including claims to both single and dual auger machines, but the Examiner refused to allow claims which did not expressly include reciprocation. Subsequently Wilcox filed an amendment cancelling all claims expressly including reciprocation and presenting new claims, all of which contained phraseology which Wilcox asserted required reciprocation or its equivalent.

The Examiner proposed a claim for interference purposes and on June 17, 1960, Wilcox inserted the claim in his application. On July 20 an interference was declared between the Wilcox application and an application of Thomas H. Queer. On March 20, 1961, Wilcox voluntarily cancelled all claims which related to a single auger machine, and on July 9, 1962, the Examiner acted upon the amendments filed by Wilcox. At this time the Wilcox

apparatus patent No. 3,026,098 had issued and the Examiner rejected all claims in the application as unpatentable over that patent. Thereafter, Wilcox abandoned this application.

Throughout the interference proceeding, Wilcox asserted that the subject count was unpatentable, and that two slight differences, to-wit, reciprocation or its equivalent and vertical adjustment, were the factors which created patentability in the machine of Wilcox. Ultimately Wilcox disclaimed the subject matter of the count, and the count eventually issued as a claim in U. S. Patent No. 3,066,924 issued to Thomas H. Queer.

On May 8, 1961, following the Patent Office action in denying the Wilcox motion to dismiss the interference with Mr. Queer, Wilcox filed a fourth application Serial No. 108,371 alleged to be a division of the 1957 application. The description of the invention was identical with that in the 1957 application and the specification disclosed a machine in which a pair of auger cutters were rotated and longitudinally reciprocated as the machine was drawn transversely across the face of the coal, and which included an improved form of vertical adjustment. There was no disclosure that the machine could operate without longitudinal reciprocation of the cutters. On September 1, 1961, the Examiner rejected all claims in the application, first, because the claims were not related to an independent invention from that claimed in the Wilcox application involved in the interference, and, second, because all claims were unpatentable over the disclosure of the Queer application. It should be noted that the Examiner specifically held that the vertical adjustability of the cutters was an expedient within the skill of the art and that making the cutters of equal diameter and of opposite pitch was a mere matter of engineering choice. Wilcox agreed to cancel all conflicting claims in the application involved in the interference if those claims were allowed in this new appli-

cation. Following a further interview and supplemental amendment, a rejection by the Examiner on the ground that the claims were indefinite, and a further amendment, the Wilcox apparatus patent No. 3,026,098 finally issued on March 20, 1962.

The Method Patent

Shortly after the notice of interference was issued by the Patent Office, on June 30, 1960, Wilcox filed a new application Serial No. 40,014 which he claimed was a division of the 1957 application. The description of the alleged invention was substantially the same as that contained in the 1957 application, but the specification stated that the invention related to mining methods. The single claim in the application was directed to a method of mining although the specification stated that there had been provided a continuous mining machine. In any event, on September 16, 1960, the Patent Office rejected this claim as fully met by the Hess patent.

Following an interview with the Examiner on October 3, 1960, the application was amended cancelling the original claim and adding two new claims. Claim 2 recited the process in procedural language while Claim 3 recited the process in terms of the manner in which the apparatus described therein was to be used. Claim 2 was rejected by the Examiner while Claim 3 was allowed.

On January 10, 1961, Wilcox Patent No. 2,967,701 issued with one claim, the Claim 3 above referred to, which is directed to the manner in which the apparatus described in the specification is to be used. The claim of this method patent sets forth three operative steps which are (1) sumping [1] in the augers, (2) moving the augers horizontally

[1] The term "sump in" as used in the coal industry is apparently of long standing and well defined. It means that by the assistance of a winch, rope and pulleys, the cutting augers may be pushed inwardly against the mine face until they cut to their working depth into the vein of coal.

to cut and convey the coal outwardly and vertically to form the sidewalls, and (3) continuously gathering and conveying the coal.

The Prior Art

[3] While counsel for Wilcox have in effect conceded that each of the elements contained in the apparatus patent were known and disclosed by the prior art, a brief review of the art as disclosed in the Patent Office antecedent to the Wilcox patent is helpful.[2] Representative of the patents on the subject and a summary of the elements therein is as follows:

Queer United States Patent No. 3,066,924. This, of course, was the patent involved in the interference with Wilcox in the proceedings in the Patent Office. It clearly teaches a plurality of cutting augers, vertical adjustment, the sumping operation, the transverse movement across the vein of coal to be cut and the simultaneous conveying of the coal.

Anderson United States Patent No. 2,592,996. While this machine was designed for "long wall mining" procedure, it does teach a plurality of horizontally spaced cutting elements, vertical adjustment, transverse cutting of the seam and conveying of the coal.

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[2] Counsel for Wilcox characterized the prior art patents as "merely paper patents" which had no practical impact on the coal industry. However, on the issue of invention this argument of Wilcox was answered by the following observation of Judge Learned Hand in Western States Mach. Co. v. S. S. Hepworth Co. (2nd Cir. 1945) 147 F. 2d 345, at 350:

> "A patent may have lain for years unheeded, as little a contribution to the sum of knowledge as though it had never existed, an idle gesture long since drifted into oblivion. Nevertheless, it will be as effective to invalidate a new patent, as though it had entered into the very life blood of the industry."

Walker United States Patent No. 1,500,352. This patent teaches the plurality of cutting elements, vertical adjustment, the sumping procedure, transverse cutting of the coal and conveying thereof.

Hess United States Patent No. 1,032,902 and United States Patent No. 1,006,213. These patents teach the use of an auger as a cutting element, reciprocation of the cutting element, vertical adjustment, the sumping process, the transverse movement across the vein of coal and the conveying thereof.

Hoadley United States Patent No. 1,040,679. This patent teaches a plurality of cutting elements horizontally spaced with vertical adjustment, the sumping procedure, the transverse cutting of the coal and the conveying thereof.

Kuhn United States Patent No. 1,148,973. This patent teaches the plurality of cutting augers horizontally spaced, with vertical adjustment, capable of sumping into the face of the coal and cutting of the coal transversely.

Discussion

[4, 5] The Wilcox patents are, of course, entitled to the presumption of validity under 35 U.S.C.A. § 282. This presumption does not, however, relieve the Court of the responsibility of inquiry as to validity. This judicial inquiry in regard to the Wilcox apparatus patent must be made in the light of Mr. Justice Jackson's classic admonition in Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp. 1950 340 U.S. 147, at 152, 71 S. Ct. 127, at 130, 95 L.Ed. 162:

> "Courts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements. The function of a patent is to add to the sum

of useful knowledge. Patents cannot be sustained when, on the contrary, their effect is to subtract from former resources freely available to skilled artisans."

[6] Patentability is dependent upon novelty and utility as defined in 35 U.S.C.A. §§ 101 and 102, and non-obviousness as expressed in the 1952 Act in § 103 as follows:

"§ 103. *Conditions for Patentability; non-obvious subject matter*

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

Patentability, especially in the light of § 103 was carefully analyzed in Graham v. John Deere Co., supra (1965). In the course of this analysis Mr. Justice Clark made the following observations (at p. 14 of 383 U.S., at p. 692 of 86 S.Ct.):

"The section is cast in relatively unambiguous terms. Patentability is to depend, in addition to novelty and utility, upon the 'non-obvious' nature of the 'subject matter sought to be patented' to a person having ordinary skill in the pertinent art."

And at page 17, 86 S.Ct. at p. 693:

"Approached in this light, the § 103 additional condition, when followed realistically, will permit a more practical test of patentability. The emphasis on non-

obviousness is one of inquiry, not quality, and, as such, comports with the constitutional strictures.

"While the ultimate question of patent validity is one of law, Great A. & P. Tea Co. v. Supermarket Equipment Corp., supra, 340 U.S. at 155, 71 S.Ct. at 131, the § 103 condition, which is but one of three conditions, each of which must be satisfied, lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy."

The record in the present case indicates clearly that each of the elements of the combination in the Wilcox apparatus patent is old and fully disclosed in the prior art. While undoubtedly the combination was a useful and successful improvement, it does not in my opinion rise to the level of invention. See Interstate Rubber Prod. Corp. v. Radiator Specialty Co. (4th Cir. 1954) 214 F.2d 546; American Monorail Co. v. Parks-Cramer Co. (4th Cir. 1957) 245 F.2d 739. The arrangement of these old elements into a compact and movable machine which could operate in a low-roof mine may have required a high degree of mechanical skill, but did not constitute invention within the meaning of the patent law. See Ranco, Inc. v. Gwynn (6th Cir. 1942) 128 F.2d 437. American Morgan Co. v. Joy Mfg. Co. (D.C.W.D.Pa.1939) 31 F. Supp. 419. The machine produced and marketed by Wilcox enjoyed a high degree

of commercial success and this fact was emphasized by counsel for Wilcox throughout the Patent Office proceedings; but commercial success is not the criterion and without invention it will not support patentability. Servo Corp. of America v. General Electric Co. (4th Cir. 1964) 337 F.2d 716; Triumph Hosiery Mills, Inc. v. Alamance Industries, Inc. (4th Cir. 1962) 299 F.2d 793.

In addition to commercial success, as heretofore pointed out, Wilcox consistently urged in the Patent Office that his machine was the first to successfully combine the three elements of rotation, reciprocation and vertical adjustability. However, the concurrent developments in the production and use of the Wilcox machines in the mining industry do not support those representations and, indeed, provide evidence which is fatal to Wilcox's case.

The record indicates that the original mining machines manufactured and sold by Wilcox broadly corresponded to the machines disclosed in the patents involved in this litigation. Those machines had two horizontally spaced augers which were rotated and reciprocated and which were vertically adjustable. However, the record further shows that since June 6, 1958, Wilcox has sold no machine which contains an oscillator to reciprocate the augers. The record shows that as early as May 21, 1958, Stonega Coal Company, which was using a machine purchased from Wilcox, discovered that in the practical use of the machine reciprocation of the augers could be eliminated and had removed the oscillators from the machine. Since June of 1958, the machines which were sold by Wilcox and a large majority of the machines presently in use do not have such oscillators and do not include reciprocation as a part of the operation of the machine.

As heretofore noted in the review of the Patent Office proceedings, Wilcox apparently recognized that reciprocation was not a necessary element of his invention when on June 29, 1959, he first inserted a claim which did not spe-

cifically require reciprocation. The Examiner properly rejected the claims which did not include reciprocation, and in response to Wilcox's contention that "critical bit spacing" was the equivalent of reciprocation in the combination the Examiner made this observation:

> "No new or unobvious results are seen in providing the reference with a pair of concentric helical blades. As pointed out by applicant, the pair of blades may have significance in connection with critical spacing of cutting teeth but no such spacing is disclosed or claimed."

In the light of the entire record the Wilcox apparatus patent falls short of validity on three grounds:

First, when the element of reciprocation is eliminated from the combination, the residue of the claimed invention should have been clearly obvious to those skilled in the art, and accordingly the patent is invalid for lack of invention under 35 U.S.C.A. § 103. The prior art cited herein anticipates every element of the Wilcox machine, and as stated in Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp., supra, 340 U.S. at 153, 71 S.Ct. at 130, Wilcox " * * * has added nothing to the total stock of knowledge, but has merely brought together segments of prior art and claims them in congregation as a monopoly."

I might state here that the contention of Wilcox that "critical bit spacing" is the equivalent of reciprocation in the combination is not supported by the record. First of all, nowhere does there appear any definition of this critical spacing; and, second, the record shows that machines which were sold by Wilcox before such critical bit spacing was substituted for reciprocation apparently operated satisfactorily when reciprocation was entirely eliminated by the operator.

Second, the Wilcox patent specifically discloses a machine in which reciprocation is a vital element, and any

attempt to construe the claims in a manner which does not require reciprocation or its equivalent renders them invalid for overclaiming by purporting to cover a combination not disclosed in the patent. See Schriber-Schroth Co. v. Cleveland Trust Co. (1938) 305 U.S. 47, 59 S.Ct. 8, 82 L.Ed. 34; Plax Corporation v. Precision Extruders, Inc. (3rd Cir. 1957) 239 F.2d 792.

Third, assuming that critical bit spacing in the context of the claimed combination does, in fact, exist, as the Examiner pointed out such spacing is neither disclosed nor claimed in the patent, and accordingly Wilcox has failed to satisfy the requirements of 35 U.S.C.A. § 112 which requires a clear and concise description of the invention.

These observations relative to the invalidity of the apparatus patent apply in a large degree to Method Patent No. 2,967,701. Additionally, however, this method patent falls because the claim sets forth merely the manner in which the apparatus is used. As stated in Chisholm-Ryder Co. v. Buck (4th Cir. 1933) 65 F.2d 735, 736:

> "Thus it appears that the method proposed may be performed by the patented machine; but the evidence fails to indicate how the process may be carried out practicably in any independent fashion, and the result is that the process patent merely states the function or effect of the machine, and is invalid under the established rule."

In view of my conclusions on the issues of validity, it is unnecessary to pass on the question of alleged infringement. However, some brief observations on this issue are pertinent.

First of all, the record clearly shows that Jeffrey, influenced by the success of the Wilcox machine, studiously copied the Wilcox product and placed on the market the Jeffrey 100-L which was to a large degree

a duplication of the machine being produced and sold by Wilcox. In the absence of a valid patent by Wilcox, however, Jeffrey was entitled to engage in such competitive conduct. Sears, Roebuck & Co. v. Stiffel Co. (1964) 376 U.S. 225, 84 S.Ct. 784, 11 L.Ed.2d 661. And even should we assume the validity of the Wilcox Patent No. 3,026,098 as issued, the Jeffrey machine does not infringe since it omitted one essential element of the Wilcox patent, that is reciprocation or its equivalent. Under these circumstances infringement could not be established. See Entron of Maryland, Inc. v. Jerrold Electronics Corp. (4th Cir. 1961) 295 F.2d 670. Suffice it to say, that the observations with respect to both validity and infringement apply in these cases equally, where appropriate, to Eastern as well as Jeffrey.

Conclusions of Law

1. This Court has jurisdiction over the parties and the subject matter of Civil Action No. 2544 and Civil Action No. 2721.

[7] 2. The Wilcox Patent No. 3,026,098 is invalid because the subject matter thereof was obvious to those skilled in the art at the time the alleged invention was made. Therefore, the patent is invalid for lack of invention under 35 U.S.C.A. § 103.

3. The Wilcox Patent No. 3,026,098 is invalid because the claims, in the scope contended for here, are broader than any invention disclosed in the patent or any invention made by Mr. Wilcox. The claims of such scope are invalid for overclaiming.

4. The Wilcox Patent No. 2,967,701 is invalid because the method which the patent purports to cover was obvious to those skilled in the art at the time the alleged invention was made. Therefore, the patent is invalid for lack of invention under 35 U.S.C.A. § 103.

[8] 5. The Wilcox Patent No. 2,967,701 is invalid because the claim of the patent covers merely the method of using the apparatus disclosed in the patent.

6. The Wilcox Patent No. 3,026,098 has not been infringed by Jeffrey. The manufacture, sale and use of the Jeffrey 100-L miner does not infringe Wilcox Patent No. 3,026,098.

7. The Wilcox Patent No. 3,026,098 has not been infringed by Eastern.

8. The Wilcox Patent No. 2,967,701 has not been infringed by Jeffrey. Mining operations carried out with the Jeffrey 100-L miner in accordance with the operating procedures recommended by Jeffrey do not infringe Wilcox Patent No. 2,967,701.

9. The Wilcox Patent No. 2,967,701 has not been infringed by Eastern.

This opinion is being filed in lieu of findings of fact and conclusions of law pursuant to Rule 52 F.R.Civ.P., and counsel may prepare appropriate judgment orders in each case.

Title 35, United States Code, Section 112

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention. A claim may be written in independent or dependent form, and if in dependent form, it shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. (Amended July 24, 1965, Public Law 89-83, sec. 9, 79 Stat. 261.)